

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A brake device having a fluid pressure source which generates a fluid pressure based on an operation of a brake operating member, the brake device ~~actuated by the fluid pressure generated by the fluid pressure source~~, comprising:

- a brake operating amount detector which detects an operating amount of the brake operating member,
- a fluid source pressure detector which detects the pressure generated in the fluid pressure source, and
- a failure detector which detects and distinguishes between different types of failures of the brake device based on the pressure detected by the fluid source pressure detector and the operating amount detected by the brake operating amount detector, wherein the failure detector detects and distinguishes the types of the failures between: (i) a case in which the pressure detected by the fluid source pressure detector at a time when the detected operating amount is a first predetermined amount of operation is smaller than a first predetermined pressure, the first predetermined amount of operation which is smaller than a second predetermined amount of operation is smaller than a first predetermined pressure and the first predetermined pressure which is larger than a second predetermined pressure, (ii) a case in which the pressure detected by the fluid source pressure detector at the time when the detected operating amount is the first predetermined amount of operation is larger than the first predetermined pressure, and (iii) a case in which the pressure detected by the fluid source pressure detector at a time when the operating amount detected by the brake operation amount detector is the second predetermined amount of operation is larger than the second predetermined pressure.

2. (Canceled)

3. (Currently Amended) The brake device as in claim 1, wherein the fluid pressure source includes a master cylinder which generates the fluid pressure corresponding to an input power, and a booster which increases an operation power of the brake operating member and outputs an increased operation power to the master cylinder,

the fluid source pressure detector includes a master cylinder pressure detector which detects the pressure of the master cylinder or a connected portion of the master cylinder, and

the failure detector detects a failure of the booster in the case that the pressure of the master cylinder at the time when the ~~opening~~operating amount of the brake operation detected by the operating amount detector is the second predetermined amount of operation is larger than the second predetermined pressure, and detects the failure of fluid leakage of the brake device in a case that the pressure of the master cylinder at the time when the amount of the brake operation is the second predetermined amount of operation is smaller than the second predetermined pressure.

4. (Previously Amended) The brake device as in claim 3, wherein the failure detector includes a bottoming detector which detects a bottoming condition in the master cylinder.

5. (Previously Amended) The brake device as in claim 4, wherein the brake operating amount detector includes an operation power detector which detects power supplied to the brake operating member, and

the bottoming detector detects the bottoming condition based on whether an increasing gradient of the operation power detected by the brake operating amount detector is larger than a predetermined gradient or not.

6. (Currently Amended) The brake device as in claim 5, further comprising a brake fluid control device which controls a brake fluid pressure in different ways based on the type of the failure detected by the failure detector,

the fluid source pressure detector includes a master cylinder pressure detector which detects a master pressure of the master cylinder pressure detector or a connected portion of the master cylinder pressure detector,

the failure detector detects a small amount fluid leakage failure in the case that the pressure detected by the master cylinder pressure detector at the time when the brake operation detected by the brake operating amount detector is the first predetermined operation is larger than the first predetermined pressure, and a decreasing gradient of the master pressure detected by the master cylinder pressure detector is larger than a predetermined gradient,

the brake fluid control device includes a leakage amount control device which increases a supplying amount of a brake fluid to a brake, if the failure detector detects the small amount fluid leakage failure, compared to the supplying amount of the brake fluid when a large amount fluid leakage failure is detected.

7. (Previously Amended) The brake device as in claim 5, wherein:

the master cylinder has two pressure chambers and generates the fluid pressure corresponding to the input power,

the brake device includes a front side brake connected to one of the two pressure chambers and a rear side brake connected to the other of the two pressure chambers, and

the fluid source pressure detector includes a front wheel side pressure detector which detects the fluid pressure of the pressure chamber which is connected to the front side brake or a portion connected to a corresponding pressure chamber of the master cylinder.

8. (Currently Amended) The brake device as in claim 1, further comprising a brake fluid control device which controls a brake fluid pressure in different ways based on the type of the failure detected by the failure detector,

the fluid pressure source includes a master cylinder which has a pressure chamber and generates the fluid pressure corresponding to an input power, a first compressing device which compresses an operating fluid of the pressure chamber of the master cylinder and supplies a compressed operating fluid to a brake, a second compressing device which compresses the operating fluid stored in an atmospheric condition in a master reservoir-chamber, the master reservoir chamber is larger than the pressure chamber of the master cylinder, and

the brake fluid control device includes a brake condition selection device which selects either of a first condition in which the brake is compressed by the first compressing device, or a second condition in which the brake is compressed by the second compressing device based on the type of the failure detected by the failure detector.

9. (Currently Amended) A brake device having a fluid pressure source which generates a fluid pressure based on an operation of a brake operating member, the brake device ~~actuated by the fluid pressure generated by the fluid pressure source~~, comprising:

a brake operating amount detector which detects an operating amount of the brake operating member,

a fluid source pressure detector which detects the fluid pressure generated in the fluid pressure source,

a failure detector which detects and distinguishes between different types of abnormal failures of the brake device based on the pressure detected by the fluid source pressure detector and the operating amount detected by the brake operating amount detector, and

a brake fluid control device which controls the brake fluid pressure in different ways based on the type of the failure detected by the failure detector, wherein the fluid pressure source includes a master cylinder which has a pressure chamber and generates the fluid pressure corresponding to an input power, a first compressing device which compresses an operating fluid of the pressure chamber of the master cylinder and supplies a compressed operating fluid to a brake, a second compressing device which compresses the operating fluid stored in an atmospheric condition in a reservoir chamber, the reservoir chamber is larger than the pressure chamber of the master cylinder, and

the brake fluid control device includes a brake condition selection device which selects either of a first condition in which the brake is compressed by the first compressing device, or a second condition in which the brake is compressed by the second compressing device based on the type of the failure detected by the failure detector.

10. (Previously Amended) The brake device as in claim 9, wherein the failure detector includes a bottoming detector which detects a bottoming condition in the master cylinder.

11. (Previously Amended) The brake device as in claim 10, wherein the brake operating amount detector includes an operation power detector which detects a power supplied to the brake operating member, and

the bottoming detector detects the bottoming condition based on whether an increasing gradient of the operation power detected by the brake operating amount detector is larger than a predetermined gradient or not.

12. (Currently Amended) The brake device as in claim 10, wherein the fluid source pressure detector includes a master cylinder pressure detector which detects the pressure of a in the pressure chamber of the master cylinder or a connected portion of the master cylinder,

the failure detector detects a small amount fluid leakage failure if the master pressure detected by the master cylinder pressure detector at the time when the brake operation detected by the brake operating amount detector is a first predetermined operation is larger than a first predetermined pressure, and a decreasing gradient of the master pressure detected by the master cylinder pressure detector is larger than a predetermined gradient, and

the brake fluid control device includes a leakage amount control device which increases a supplying amount of a brake fluid to a brake if the failure detector detects a small amount fluid leakage failure, compared to the supplying amount of the brake fluid when a large amount fluid leakage failure is detected.

13. (Canceled)

14. (Currently Amended) The brake device as in claim 9, wherein:

the master cylinder has ~~two~~ at least one pressure ~~chambers~~ chamber and generates the fluid pressure corresponding to the input power,

the brake device includes a front side brake connected to one of the two pressure chambers and a rear side brake connected to the other of the two pressure chambers, and

the fluid source pressure detector includes a front wheel side pressure detector which detects the fluid pressure of the pressure chamber which is connected to the front side brake or a portion connected to ~~a corresponding~~ ^{@1} the pressure chamber of the master cylinder.

15. (Canceled)

16. (Currently Amended) A brake device having a fluid pressure source which generates a fluid pressure based on an operation of a brake operating member, the brake device actuated by the fluid pressure generated by the fluid pressure source, comprising:

a brake operating amount detector which detects an operating amount of the brake operating member,

a fluid source pressure detector which detects the pressure generated in the fluid pressure source,

a failure detector which detects and distinguishes between different types of abnormal failures of the brake device based on the pressure detected by the fluid source pressure detector and the operating amount detected by the brake operating amount detector,

the fluid pressure source device includes a master cylinder which generates the fluid pressure corresponding to an input power, and

the failure detector includes a bottoming detector which detects a bottoming condition in the master cylinder based on whether an increasing gradient of the brake operating amount detected by the brake operating amount detector is larger than a predetermined gradient.

17. (Previously Amended) The brake device as in claim 16, wherein the brake operating amount detector includes an operation power detector which detects an operation power supplied to the brake operating member, and

the bottoming detector detects the bottoming condition based on whether an increasing gradient of the operation power detected by the brake operating amount detector is larger than a predetermined gradient or not.

18. (Previously Amended) The brake device as in claim 16, wherein the master cylinder has two pressure chambers and generates the fluid pressure corresponding to the input power, and the brake device includes a front side brake connected to one of the two pressure chambers and a rear side brake connected to the other of the two pressure chambers, and

the fluid source pressure detector includes a front wheel side pressure detector which detects the fluid pressure of the pressure chamber which is connected to the front

wheel side brake or a portion connected to a corresponding pressure chamber of the master cylinder.

19. (Previously Added) The brake device as in claim 16, wherein the fluid source pressure detector includes a master cylinder pressure detector which detects a master pressure of a pressure chamber of the master cylinder or of a portion connected to the master cylinder, and

the bottoming detector detects the bottoming condition based on whether a decreasing gradient of the master pressure detected by the master cylinder pressure detector is larger than a predetermined gradient.

20. (Previously Added) The brake device as in claim 16, wherein the brake operating amount detector includes a stroke detector which detects an operating stroke of the brake operating member, and

the bottoming detector detects the bottoming condition based on whether an increasing gradient of the stroke detected by the stroke detector is smaller than a predetermined gradient.

21. (Previously Added) The brake device as in claim 16, further comprising a brake fluid control device which controls the brake fluid pressure in different ways based on the type of the failure detected by the failure detector.

22. (Currently Amended) A brake device having a fluid pressure source device ~~which generates a fluid pressure source device which generates a fluid pressed pressure based on an operation state of a brake operating member, the brake device comprising:~~

a fluid source pressure detector which detects the pressure generated in the fluid pressure source device; and

a failure determining device which determined that there is a first abnormal failure when a combination of the operation state of the brake and the fluid pressure is a first

combination state, and determines that there is a second abnormal failure being different from the first abnormal failure if the combination of the operation of the brake and the fluid pressure is a second combination state being different from the first combination state.

23. (Currently Amended) A brake device as in claim 22, wherein the failure determining device detects and distinguishes the types of the failures between a case in which the pressure detected by the fluid source pressure detector at the time when the detected amount of the brake operation is a second predetermined amount of operation which is smaller than a first predetermined amount of operation is smaller than ~~the~~ a second predetermined pressure which is larger than ~~the~~ a first predetermined pressure, and a case in which the fluid pressure is larger than the second predetermined pressure, and if the fluid pressure detected by the fluid source pressure detector at a time when the amount of the brake operation detected by the brake operation amount detector is the first predetermined amount of operation is smaller than the first predetermined pressure.

24. (Previously Added) The brake device as in claim 23, wherein the fluid pressure source includes a master cylinder which generates the fluid pressure corresponding to an input power, and a booster which increases an operation power of the brake operating member and outputs an increased operation power to the master cylinder,

the fluid source pressure detector includes a master cylinder pressure detector which detects the pressure of the master cylinder or a connected portion of the master cylinder, and

the failure determining device detects a failure of the booster in the case that the pressure of the master cylinder at the time when the opening amount of the brake operation detected by the operating amount detector is the second predetermined amount of operation is larger than the second predetermined pressure, and detects the failure of fluid leakage of the brake device in a case that the pressure of the master cylinder at the time when

the amount of the brake operation is the second predetermined amount of operation is smaller than the second predetermined pressure.

25. (Previously Added) The brake device as in claim 24, wherein the failure determining device includes a bottoming detector which detects a bottoming condition in the master cylinder.

26. (Previously Added) The brake device as in claim 25, wherein the brake operating amount detector includes an operation power detector which detects power supplied to the brake operating member, and

the bottoming detector detects the bottoming condition based on whether an increasing gradient of the operation power detected by the brake operating amount detector is larger than a predetermined gradient or not.

27. (Previously Added) The brake device as in claim 26, further comprising a brake fluid control device which controls a brake fluid pressure in different ways based on the type of the failure detected by the failure determining device,

the fluid source pressure detector includes a master cylinder pressure detector which detects a master pressure of the master cylinder or a connected portion of the master cylinder,

the failure determining device detects a small amount fluid leakage failure in the case that the pressure detected by the master cylinder pressure detector at the time when the brake operation detected by the brake operating amount detector is the first predetermined operation is larger than the first predetermined pressure, and a decreasing gradient of the master pressure detected by the master cylinder pressure detector is larger than a predetermined gradient,

the brake fluid control device includes a leak amount control device which increases a supplying amount of a brake fluid to a brake, if the failure determining device

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detects the small amount fluid leakage failure, compared to the supplying amount of the brake fluid when a large amount fluid leakage failure is detected.

28. (Previously Added) The brake device as in claim 26, wherein:

the master cylinder has two pressure chambers and generates the fluid pressure corresponding to the input power,

the brake device includes a front side brake connected to one of the two pressure chambers and a rear side brake connected to the other of the two pressure chambers, and

the fluid source pressure detector includes a front wheel side pressure detector which detects the fluid pressure of the pressure chamber which is connected to the front side brake or a portion connected to a corresponding pressure chamber of the master cylinder.

29. (Previously Added) The brake device as in claim 22, further comprising a brake fluid control device which controls a brake fluid pressure in different ways based on the type of the failure detected by the failure determining device,

the fluid pressure source includes a master cylinder which has a pressure chamber and generates the fluid pressure corresponding to an input power, a first compressing device which compresses an operating fluid of the pressure chamber of the master cylinder and supplies a compressed operating fluid to a brake, a second compressing device which compresses the operating fluid stored in an atmospheric condition in a reservoir chamber, the reservoir chamber is larger than the pressure chamber of the master cylinder, and

the brake fluid control device includes a brake condition selection device which selects either of a first condition in which the brake is compressed by the first compressing device, or a second condition in which the brake is compressed by the second compressing device based on the type of the failure detected by the failure detector.

30. (Currently Amended) A brake device having a fluid pressure source device which generates a fluid ~~pressed-pressure~~ pressure based on an operation state of a brake operating member, the brake device comprising:

a fluid source pressure detector which detects the pressure generated in the fluid pressure source device;

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a failure determining device which determines that there is a first abnormal failure when a combination of the ~~an~~ operation state of the brake and the fluid pressure is a first combination state, and determines that there is a second abnormal failure being different from the first failure if the combination of the operation of the brake and the fluid pressure is a second combination is a second combination being different from the first combination state; and

a brake fluid control device which controls the brake fluid pressure in a first way when the failure determining device determines that there is the first abnormal failure, and control the brake fluid in a second way being different from the first way when the failure determining device determines that there is the second abnormal failure.

Amendments to the Drawings:

The attached replacement drawing sheets makes changes to Figs. 1, 2, 5 and 12 and replaces the original sheets with Figs. 1, 2, 5 and 12.

Attachment: Replacement Sheets